

Translation

PATENT COOPERATION TREATY

PCT/JP2003/014741



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference W1260-00 | FOR FURTHER ACTION See Form PCT/IPEA/416 | |
| International application No. PCT/JP2003/014741 | International filing date (day/month/year) 19 November 2003 (19.11.2003) | Priority date (day/month/year) 27 November 2002 (27.11.2002) |
| International Patent Classification (IPC) or national classification and IPC H05K 3/46 | | |
| Applicant SUMITOMO BAKELITE COMPANY LIMITED | | |

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☐ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☐ Box No. VIII Certain observations on the international application

| | |
|--|--|
| Date of submission of the demand 31 March 2004 (31.03.2004) | Date of completion of this report 04 August 2004 (04.08.2004) |
| Name and mailing address of the IPEA/JP | Authorized officer |
| Facsimile No. | Telephone No. |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/014741

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ The international application as originally filed/furnished
- ☐ the description:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the claims:
- pages _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|----------|-----|
| Novelty (N) | Claims | 4, 10-22 | YES |
| | Claims | 1-3, 5-9 | NO |
| Inventive step (IS) | Claims | 17-22 | YES |
| | Claims | 1-16 | NO |
| Industrial applicability (IA) | Claims | 1-22 | YES |
| | Claims | | NO |

2. Citations and explanations (Rule 70.7)

Document 1: JP, 2002-329966, A (Sumitomo Bakelite Co., Ltd.), 15 November, 2002(15.11.02) Document 2: JP, 11-54934, A (Ibiden Co., Ltd.), 26 February, 1999 (26.02.99)
Document 3: JP, 7-135375, A (Mitsui Toatsu Chemicals, Inc.), 23 May, 1995 (23.05.95)

The subject matters of claims 1, 2, 5 and 8 do not appear to be novel in view of document 1 cited in the ISR. A circuit board having conductive two-layer posts and protruding terminals covered by a metal coating layer as described in claims 1, 2, 5 and 8 is disclosed in document 1.

The subject matters of claims 3, 6, 7 and 9 do not appear to be novel in view of document 1 cited in the ISR. A circuit board provided with conductive two-layer posts and an adhesive layer having a flux function as stated in claims 3, 6, 7 and 9 is disclosed in document 1.

The subject matter of claim 4 does not appear to involve an inventive step in view of document 1 cited in ISR. It is considered to be obvious for a person skilled in the art to apply a commonly used method of providing surface coating to conductive circuits, a part of which is left uncoated, in the invention of document 1.

The subject matters of claims 10 to 14 do not appear to involve an inventive step in view of documents 1 and 2 cited in the ISR. It is considered to be obvious for a person skilled in the art to apply the lamination means for multi-layer wiring board mentioned in document 2, in the invention of document 1.

The subject matters of claims 15 and 16 do not appear to involve an inventive step in view of documents 1 and 3 cited in the ISR. It is considered to be obvious for a person skilled in the art to apply the method of giving flexibility by means of a single-layer part as stated in document 3 in the invention of document 1.

The subject matters of claims 17-22 appear to involve an inventive step in view of documents 1-3 cited in the ISR. No detailed description of a flexible rigid substrate is found in documents 1-3 and this feature does not appear to be obvious to a person skilled in the art.